

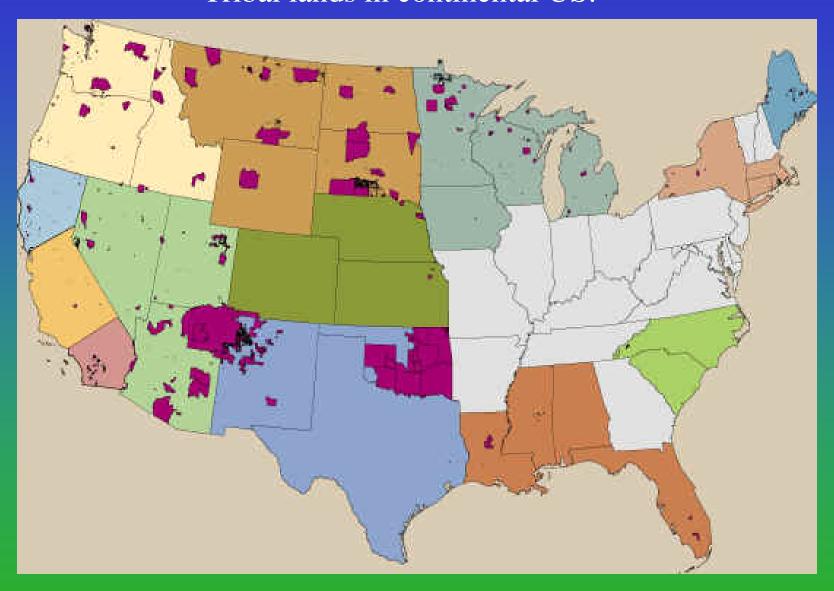
Contributions of Tribal Environmental Agencies to Quality Assurance in Environmental Monitoring

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TAMS Center:

- Northern Arizona University
- US EPA
- Mission is to develop tribal capacity to assess, understand and prevent environmental impacts that adversely affect health, cultural, and natural resources

Tribal lands in continental US:



TAMS Learning Center in Las Vegas:

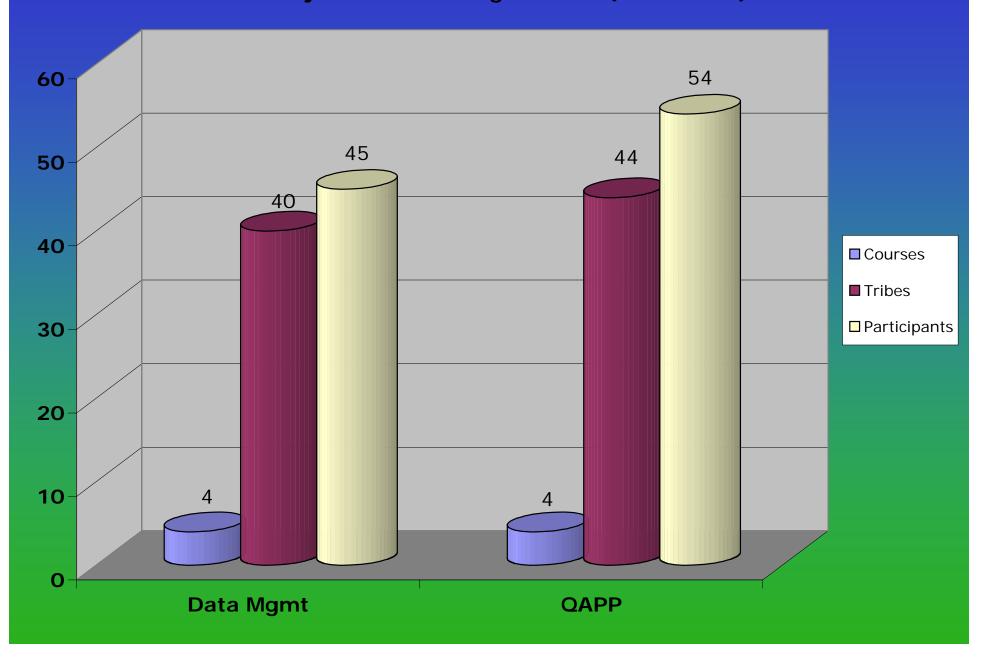




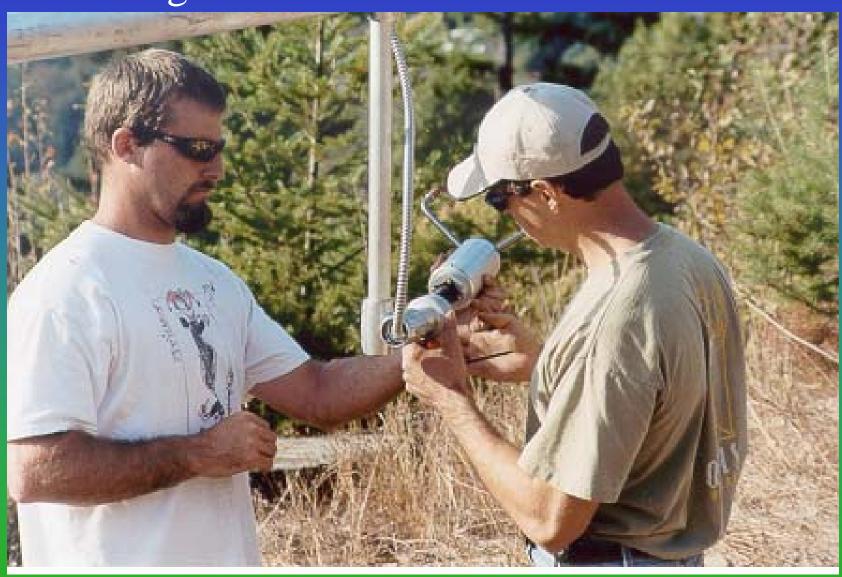
Hands-on learning techniques:



Number of Tribes and Individuals Trained at Data Management and QA Project Plan Training Courses (2000-2004)



On-site field assistance with instrumentation and data management:



What does "Contributions to QA in Environmental Monitoring" mean"?

- QA is the system "to obtain data of the type and quality needed by the client"
- Positive contribution is made when that system is efficient and flexible
- Environmental monitoring is improved when the organization eats, drinks, and breathes the environment

Tribal contributions to QA:

- Two major categories of characteristics that differentiate tribal environmental agencies from other "reporting organizations"
 - -Small and relatively young
 - -Philosophically different than local and state

How small organizations contribute to QA:

• Efficient:

- QA documents are written and understood by implementers
- Improvement cycle fast

• Flexible:

- Community concerns can be quickly addressed
- Special projects respond to needs
- Updated information from vendors and US
 EPA can be quickly incorporated in program

Young organizations:

- Are starting fresh, with no entrenched procedures
- Have benefit of recent advances and simplifications in guidelines and instrumentation
- Have benefit of learning from others

Philosophical differences between Tribes and other reporting organizations

- 1. Sovereign entities, with status parallel to that of a nation
 - Can write their own environmental laws or adopt federal or state laws
 - Primary reporting is to Tribal Council and community, rather than US EPA or state
 - Not limited by existing environmental protection structure

(disadvantages of not being subject to existing federal, state, or local laws):



Philosophical differences, cont.:

2. Cultural value of environment:

- mountains, geologic formations, water bodies,
 vistas form the definitions of the people
- Ceremonies use and refer to environment
- Various clans from different regions are associated with the environment in that region
- Being "of the earth" is taken literally, as in "of this earth"

Special project to identify land contaminated with waste from uranium ore trucking:



Philosophical differences, cont.

3. Subsistence living

- fish, in oceans, lakes, and rivers
- crops, such as corn, wild rice
- hunting
- livestock

Hopi dry corn farming



Philosophical differences, final

- 4. Generational context of environmental protection:
 - Respect for ancestors who are of the land
 - Care of future generations part of explicitly stated philosophies of tribal environmental agencies
 - Identification with land is permanent

Yisk'aaz is the Navajo word for quality. It is a word that evokes a system whose parts fit together, which work in unison, and are in balance. To walk in beauty is the Navajo idea of a life in balance. Quality assurance in the Navajo view of the world is an integral part of the system. All parts of the system need work perfectly for Yisk'aaz (quality) to be achieved.

Stanley Edison, Navajo Nation Superfund Program QAPP